

## U.S. Department of Agriculture, Agricultural Research Service

### Systematic Mycology and Microbiology Laboratory - Nomenclature Fact Sheets

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#### ***Valsa* species (Anamorph *Cytospora*) on *Rosa***

Many *Valsa* and *Cytospora* species were described based on occurrence on a single host species or a narrow host range. More recently, the application of a morphological species concept has resulted in many of these species being considered synonyms of a few species with a wide host range.

Morphological characters of *Valsa* species appear to be highly variable, resulting in widespread taxonomic confusion for some species.

#### ***Valsa* spp. with a wide host range:**

Several *Valsa* species (anamorph *Cytospora*) have been recorded as occurring on *Rosa* species. Of these, *Valsa ceratosperma*, *Valsa ambiens* subsp. *ambiens* and *Valsa coronata* have a wide host range, occurring on woody plants from multiple families including various members of the Rosaceae.

*Valsa ceratosperma* was reported in the literature on *Rosa* in Pennsylvania (Spielman 1985) and SBML has a specimen on *Rosa* from New York (1893, as *Valsa ceratophora*). Other specimens on *Rosa* from outside the United States include *Valsa ceratophora* var. *maxima* (possibly an invalid herbarium name). On other hosts, *Valsa ceratosperma* is globally distributed, and has been widely reported in the United States.

*Valsa rhodophila* Berk. & Broome 1859 is apparently a synonym of *Valsa ceratosperma*. *Valsa rhodophila* Berk. & Broome 1859 (not [*Valsa rhodophila* Nitschke 1870], a later illegitimate homonym, see below) was listed by Winter (1887) as a synonym of *Valsa ceratophora* = *Valsa ceratosperma* (see also Urban 1958). This fungus is listed on the Index Fungorum website as a synonym of *Valsa ambiens* subsp. *ambiens*, but I could not locate any sources to confirm this synonymy.

*Valsa ambiens* subsp. *ambiens* was reported on *Rosa* in Florida (Alfieri et al. 1984) and Iowa (Gilman et al. 1957). SBML has specimens of *Valsa ambiens* subsp. *ambiens* on *Rosa* from North Dakota (1914, as *Valsa ambiens*) and Pennsylvania (1827, as *Sphaeria experts*). Under the name [*Valsa ambiens* f. *rosae* Rehm], it was also reported from North Dakota in 1913 (Brenckle 1917); no other record of this name could be located, and it is possibly an invalid herbarium name (nom. nud.). On other hosts, *Valsa ambiens* subsp. *ambiens* is globally distributed, and has been widely reported in the United States.

*Valsa coronata* also has a wide host range, occurring on multiple plant families in addition to the Rosaceae. It has been reported from Europe, Asia (China), and North America (Canada, USA: OR, WV, GA), although the reports from North America are listed as questionable by Farr et al. (1989). It has only been reported on *Rosa* spp. in China (Tai 1979, Teng 1996, Chen 2002).

#### ***Valsa* spp., varieties and forms occurring mostly or only on *Rosa* spp.:**

Several other *Valsa* species are apparently confined to *Rosa* spp., although most of these have been surrounded by taxonomic and nomenclatural controversy.

The illegitimate homonym [*Valsa rhodophila* Nitschke 1870 nom. illeg.] (anamorph *Cytospora rhodophila*) was listed as an accepted species by Urban (1958) (as *Valsa rhodophila* Berk. & Broome sensu Nitschke), but did not receive attention in other recent taxonomic treatments (e.g., Kobayashi 1970, Gvritishvili 1982, Spielman 1985). The taxonomic status of this species should be

evaluated. There is currently no legitimate name for the teleomorph of *Cytospora rhodophila*. If this is indeed a distinct species, the teleomorph should be given a replacement name. This species is apparently confined to Europe, although confusion surrounding the existence of a homonym may have prevented its occurrence from being accurately documented. SBML has several European specimens from *Rosa* spp. under the name *Valsa rhodophila* f. *rosae* (two identified by Rehm in 1912). No record of publication of this name could be located; it may be an invalid herbarium name.

Considerable taxonomic controversy has surrounded *Valsa rosarum* (anamorph *Cytospora rosarum*). Some authors recognize it as a distinct species (e.g., Gvritishvili 1982), while others consider it a synonym of *Valsa ceratosperma* (e.g., Urban 1958; Kobayashi 1970—*Cytospora rosarum* only). This fungus has been reported from Europe and Asia (India, Pakistan). It has not been reported from the United States.

A variety of *Valsa leucostoma* has also been described on *Rosa*; *Valsa leucostoma* var. *rosarum*. This may have also been referred to by the apparently unpublished herbarium name [*Valsa leucostoma* f. *rosarum*]. Hayova & Minter (1998) considered *Valsa leucostoma* to be a synonym of *Leucostoma persoonii*, but they did not account for var. *rosarum* (or f. *rosarum*) in their synonymy. The taxonomic status of var. *rosarum* requires research evaluation.

*Valsa sepincola* f. *rosaecola* was described from a European *Rosa* collection. The name was published as *Valsa sepincola* a. *Rosaecola*. It is listed here as a form, but could also be considered a variety. Saccardo (Syll. Fung. I:134, 1882) included both the *Rosa* form and the *Rubus* form in his description under *Valsa sepincola*. Urban (1958) listed *Valsa sepincola* as an accepted species, but included only the type specimen of the *Rubus* form described by Fuckel, *Valsa sepincola* b. *rubicola*. (F. rh. ed. I, 2457), therefore *Valsa sepincola* Fuckel *sensu* Urban does not include *Rosa* as a host.

Another European *Valsa* described on *Rosa* spp., *Valsa rhodi*, is now considered to be a synonym of *Eutypa lata* var. *lata* (Rappaz 1987). Also described as occurring on *Rosa* spp., *Valsa flavovirens* (anamorph *Cytospora flavovirens*) is now considered to be a synonym of the cosmopolitan fungus *Dia Diatrype flavovirens*. Finally, a *Cytospora* on *Rosa canina* has been reported from Greece under the invalid name [*Cytospora pusilla* Schulz. & Sacc. nom. inval.] (Pantidou 1973); no description or other information could be located to confirm the identity of this fungus.

## Nomenclature Reports by Species:

### *Valsa ceratosperma*

Tode (1790) described *Sphaeria ceratosperma* based on a specimen from *Rosa canina* (as *Sphaeria ceratospermum* a. *strigosa*), referencing the pre-Linnaean name *Ceratospermum nigrum minimum discoides* Micheli. Fries sanctioned the name *Sphaeria ceratosperma* (Syst. Mycol. II: 364, 1823), referencing Tode but based on examination of Mougeot's 1818 exsiccata specimen on *Quercus*. While Fries expanded the species concept to include the fungus on *Quercus*, the type should properly be that of Tode's original specimen described from *Rosa*.

Tulasne (1863) referred Mougeot's specimen to the new species *Valsa ceratophora* Tul. & C. Tul. 1863, citing *Sphaeria ceratosperma* *sensu* Fries as a synonym pro parte (partial synonym), stating, "here we are citing particularly those synonyms which refer to the fungus growing on Oak...*Sphaeria ceratospermum* Tode, although it is not much different, is said to live on the bark of *Rosa canina* L." He thereby explicitly excluded the type of *Sphaeria ceratosperma* Tode:Fr. (Art. 48.1), and therefore *Valsa ceratophora* should not be considered a nomenclatural synonym of *Valsa ceratosperma* (Tode:Fr.) Maire ( $\equiv$  *Sphaeria ceratosperma*).

Hubbes (1960) listed Mougeot's specimen as the type of *Valsa ceratosperma* (Tode:Fr.) Maire, even

though it was on *Quercus* and not *Rosa*, the host of the fungus originally described by Tode in 1790. As a result, *Valsa ceratophora* Tul. & C. Tul. (described on *Quercus*) has been listed variously as a taxonomic synonym (Hubbes 1960) or nomenclatural synonym (Adams et al. 2005) of *Valsa ceratosperma* (Tode:Fr.) Maire (neotypified on *Quercus*). Spielman (1985) accepted Mougeot's specimen as the neotype of *Valsa ceratosperma* but did not list *Valsa ceratophora* as a synonym.

Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, while Kobayashi listed *Cytospora rosarum* as the accepted name of the anamorph, with *Torsellia dolosa* as a synonym. Gvritishvili (1982) disagreed, listing *Cytospora sacculus* as the anamorph of *Valsa ceratosperma*, followed by Spielman (1985).

**Notes:** Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, with *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* as synonyms. Gvritishvili (1982) listed *Cytospora sacculus* as the anamorph and excluded *Torsellia dolosa*, *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* from the synonymy. Hayova (1998) listed *Cytospora eucalyptina* Speg. 1917 as a taxonomic synonym, but Adams (2005) considered it a distinct species based on morphology and sequence analysis.

It is not clear that any recent taxonomic treatments have examined *Valsa ceratosperma* from the originally described hosts, *Rosa* species. Adams et al. (2005) showed that the ITS sequence of *Valsa ceratophora* (as *Cytospora ceratophora*?) was included in the clade with several isolates of *Valsa ceratosperma*, but none of these isolates were from *Rosa* spp.

### ***Valsa ceratosperma* (Tode : Fr.) Maire 1937 (Ascomycetes, Diaporthales)**

≡ *Sphaeria ceratosperma* Tode : Fr. 1791 Note: Originally described on *Rosa* spp.; sanctioned by Fries (Syst. Mycol. II: 364, 1823), expanding the species concept to include the fungus on *Quercus*.

Variant spelling *Sphaeria ceratospermum* Tode : Fr.

≡ *Diatrype ceratosperma* (Tode : Fr.) Fr. 1849

= *Valsa agnostica* Cooke & Harkn. 1884

= *Valsa americana* Berk. & M.A. Curtis 1876 Note: Lectotype designated by Spielman 1985.

= *Valsa caryigena* Berk. & M.A. Curtis 1876 Note: Latin vs. Greek connector?

Variant spelling *Valsa caryogena* Berk. & M.A. Curtis 1876

= *Sphaeria ceanothi* Schwein. 1832 [1834] Note: Not *Sphaeria ceanothi* Cooke & Harkness 1884.

≡ *Valsa ceanothi* (Schwein.) Cooke 1877 Note: Not *Valsa ceanothi* Rehm 1911.

= *Valsa ceanothi* Rehm 1911 Note: Not *Valsa ceanothi* (Schwein.) Cooke 1877.

= *Valsa ceratophora* Tul. & C. Tul. 1863 Note: Described by Tulasne based on Mougeot's specimen on *Quercus* (as *Valsa ceratosperma* Tode).

= *Valsa chlorodisca* Cooke & Ellis 1879

≡ *Engizostoma chlorodiscum* (Cooke & Ellis) Kuntze 1898

= *Valsa clavigera* Dearn. & Barthol. 1917

= *Sphaeria conspurcata* Schwein. 1832 [1834] Note: Not *Sphaeria conspurcata* Wallr. 1833 = *Massaria conspurcata* Sacc.

- ≡ *Valsa conspurcata* (Schwein.) Cooke 1877
- = *Valsa decidua* Cooke & Ellis 1877
  - ≡ *Engizostoma deciduum* (Cooke & Ellis) Kuntze 1898
- = *Sphaeria decorticans* Fr. : Fr. 1817 Note: Not the illegitimate later homonym *Sphaeria decorticans* Lib. 1837 = *Diaporthe padi*. Synonymy based on Hayova (1998); see also Adams (2005).
  - ≡ *Valsa decorticans* (Fr. : Fr.) Fr. 1849 Note: Synonymy based on Hayova (1998).
- = *Valsa delicatula* Cooke & Ellis 1877
  - ≡ *Engizostoma delicatulum* (Cooke & Ellis) Kuntze 1898
- = *Valsa diospyri* Ellis & Everh. 1894
- = *Valsa etherialis* Ellis & Everh. 1894
  - ≡ *Engizostoma etheriale* (Ellis & Everh.) Kuntze 1898
- = *Valsa excorians* Cooke & Ellis 1879
  - ≡ *Engizostoma excorians* (Cooke & Ellis) Kuntze 1898
- = *Valsa exigua* Nitschke 1870
- = *Valsa floriformis* Ellis & Everh. 1891 [1890]
  - ≡ *Engizostoma floriformis* (Ellis & Everh.) Kuntze 1898
- = *Sphaeria frustum-coni* Schwein. 1832 [1834]
  - ≡ *Valsa frustum-coni* (Schwein.) M.A. Curtis 1867
  - ≡ *Cytospora frustum-coni* (Schwein.) Starbäck 1894 Note: Teleomorph in anamorph genus?
- = *Valsa fuckelii* Nitschke 1870 Note: Synonymy based on Hayova (1998).
- = *Valsa gossypina* Cooke 1878
- = *Valsa hoffmannii* Nitschke 1870 Note: Synonymy based on Hayova (1998).
  - Variant spelling *Valsa hoffmanni* Nitschke 1870 Note: Original spelling.
- = *Valsa horrida* Nitschke 1870 Note: Synonymy based on Hayova (1998).
- = *Valsa leiphaemioides* Berk. & M.A. Curtis 1876 Note: In Spielman 1985 as *leiphaemoides*.
- = *Valsa ligustrina* Cooke 1879
- = *Valsa lutescens* Ellis 1882
  - ≡ *Eutypella lutescens* (Ellis) Sacc. 1883
  - ≡ *Engizostoma lutescens* (Ellis) Kuntze 1898
- = *Diatrype macluræ* Ellis & Everh. 1892 Note: Erroneously cited by Spielman 1985 as a nomenclatural synonym of *Valsa macluræ* Cooke & Ellis 1879.
- = *Valsa macluræ* Cooke & Ellis 1879 Note: Published Sept. 1879 not *Valsa macluræ* Fabre Oct.

1879.

≡ *Eutypella maclurae* (Cooke & Ellis) Ellis & Everh. 1892 Note: Author changed from ()Ellis; checked source.

≡ *Engizostoma maclurae* (Cooke & Ellis) Kuntze 1898

= *Valsa macrocarpa* Ellis & Everh. 1897

= *Valsa minutella* Peck 1884

= *Valsa morigena* Berk. & M.A. Curtis 1885

= *Valsa multiplex* Cooke & Ellis 1879

= *Valsa nyssae* Cooke 1878 Note: Erroneously cited as Cooke & Ellis; also in Fung. Amer. Exs. 200.

= *Valsa praestans* Berk. & M.A. Curtis 1877 Note: As *proestans*, Cooke (1877) cites Berk. & M.A. Curtis in Curtis Cat. ? Source could not be located.

= *Sphaeria radicum* Schwein. 1832

≡ *Valsa radicum* (Schwein.) Cooke 1877

= *Sphaeria rhizina* Schwein. 1832 [1834] Note: Spielman has *rhizinia*.

≡ *Valsa rhizina* (Schwein.) Cooke 1877

= *Valsa rhodophila* Berk. & Broome 1859 Note: See Winter 1887. Not the illegitimate later homonym *Valsa rhodophila* Nitschke 1870; Nitschke referred Berkeley & Broome's fungus to a rose form of *Valsa ceratophora*. Not treated by Spielman (1985).

= *Valsa rhoiphila* Cooke & Ellis 1878 Note: Published as *Valsa rhuiphila*.

≡ *Engizostoma rhoiphilum* (Cooke & Ellis) Kuntze 1898

Variant spelling *Valsa rhoophila* Cooke & Ellis Note: Saccardo's Syll. fung. I: 127

= *Sphaeria rimicola* Schwein. 1832 [1834]

≡ *Valsa rimicola* (Schwein.) Cooke 1877

≡ *Calosphaeria rimicola* (Schwein.) Ellis & Everh. 1892

[= *Valsa rubi* Peck 1877 - illegitimate later homonym, not included in search] Note: Not *Valsa rubi* Fuckel 1870.

= *Valsa rugiella* Cooke & Ellis 1877

≡ *Eutypella rugiella* (Cooke & Ellis) Sacc. 1882

≡ *Engizostoma rugiellum* (Cooke & Ellis) Kuntze 1898

= *Valsa schweinitzii* Nitschke 1870 Note: Synonymy based on Hayova (1998).

**Alternate State (Anamorph):** *Cytospora sacculus* (Schwein. : Fr.) Gvrit.

**Notes:** Tode (1790) described *Sphaeria ceratosperma* based on a specimen from *Rosa canina* (as *Sphaeria ceratospermum alpha strigosa*), referencing the pre-Linnaean name *Ceratospermum*

*nigrum minimum discoides* Micheli. Fries sanctioned the name *Sphaeria ceratosperma* (Syst. Mycol. II: 364, 1823), referencing Tode but based on examination of Mougeot's 1818 exsiccated specimen on *Quercus*. Tulasne (1863) referred Mougeot's specimen to the new species *Valsa ceratophora* Tul. & C. Tul. 1863, citing *Sphaeria ceratosperma* sensu Fries as a synonym pro parte (partial synonym), but explicitly excluding the type of *Sphaeria ceratosperma* Tode by stating: Here we are citing particularly those synonyms which refer to the fungus growing on Oak...*Sphaeria ceratospermum* Tode, although it is not much different, is said to live on the bark of *Rosa canina* L. Hubbes (1960) listed Mougeot's specimen as the type of *Valsa ceratosperma* (Tode:Fr.) Maire, even though it was on *Quercus* and not *Rosa*, the host of the fungus originally described by Tode in 1790. As a result, *Val. Valsa ceratophora* Tul. & C. Tul. (described on *Quercus*) has been listed variously as a taxonomic synonym (Hubbes 1960) or nomenclatural synonym (Adams et al. 2005) of *Valsa ceratosperma* (Tode:Fr.) Maire (neotypified on *Quercus*). Spielman (1985) accepted Mougeot's specimen as the neotype of *Valsa ceratosperma* but did not list *Valsa ceratophora* as a synonym. Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, while Kobayashi listed *Cytospora rosarum* as the accepted name of the anamorph, with *Torsellia dolosa* as a synonym. Gvritishvili (1982) disagreed, listing *Cytospora sacculus* as the anamorph of *Valsa ceratosperma*, followed by Spielman (1985).

**Distribution:** Cosmopolitan.

**Substrate:** Bark of dead or dying twigs and branches.

**Disease Note:** Opportunistic pathogen, canker.

**Host:** Woody angiosperms from multiple plant families. Pathogen of apple trees.

Verified By: Erica On Dec 22, 2005

**Cytospora sacculus** (Schwein. : Fr.) Gvrit. 1969

≡ *Sphaeria sacculus* Schwein. : Fr. 1822 Note: Sanctioned by Fries, Syst. Mycol. II p. 378, 1823.

≡ *Rabenhorstia sacculus* (Schwein. : Fr.) Starbäck 1893

≡ *Torsellia sacculus* (Schwein. : Fr.) Starbäck 1894 Note: *Sphaeria sacculus* was listed by Fries in Summa Veg. Scand. 1849 p. 413 as the type of *Torsellia*, but he did not explicitly make the combination (Art. 33.1).

= *Cytospora ailanthi* Berk. & M.A. Curtis ex Grove 1923 Note: Berkeley & Curtis did not provide a description (nom. nud.) in 1874. Saccardo listed this name under the heading Species Imperfecte Descriptae without supplemental description. Grove was the first to validly publish a description (Spielman 1985).

= *Cytospora amorphae* Ellis & Barthol. 1897 Note: Published as *Cytispora*.

= *Cytospora caryogena* Ellis & Everh. 1894 Note: Published as *Cytispora caryigena*.

= *Cytospora ceratophora* Sacc. 1879 Note: Published as *Cytispora*.

Variant spelling *Cytospora ceratophoma* Sacc. Note: Kobayashi (1970) probably intended to cite *C. ceratophora* Sacc. There is no record of this name in Index Fungorum.

= *Cytospora chloroglaea* Berk. & M.A. Curtis 1874 Note: Published as *Cytispora*.

= *Cytospora decorticans* Sacc. 1884

= *Cytospora difformis* Schwein. 1832 Note: Published as *Cytispora*.

- = *Cytospora gleditschiae* Ellis & Barthol. 1897 Note: Published as *Cytispora gleditsiae*.
- = *Cytospora grandis* Peck 1887
- = *Cytospora macluriae* Ellis & Barthol. 1897 Note: Published as *Cytispora*.
- = *Cytospora smilacis* Cooke 1878
- = *Sphaeria sphaerocephala* Schwein. : Fr. 1822 Note: This epithet has equal priority with *Cytospora sacculus*, but Spielman established priority by selecting *sacculus* as the accepted name.
  - ≡ *Cytospora sphaerocephala* (Schwein. : Fr.) Sacc. 1884
  - ≡ *Lamyella sphaerocephala* (Schwein. : Fr.) Starbäck 1894 Note: *Sphaeria sphaerocephala* was listed by Fries in *Summa Veg. Scand.* 1849 p. 413 as the type of *Lamyella*, but he did not explicitly make the combination (Art. 33.1).
- = *Cytospora tumida* Lib. 1832 Note: Synonymy based on Hayova 1998.
- = *Cytospora tumulosa* Ellis & Everh. 1897

**Alternate State (Teleomorph):** *Valsa ceratosperma* (Tode : Fr.) Maire

**Notes:** Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, with *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* as synonyms. Gvritishvili (1982) listed *Cytospora sacculus* as the anamorph and excluded *Torsellia dolosa*, *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* from the synonymy. Hayova (1998) listed *Cytospora eucalyptina* Speg. 1917 as a taxonomic synonym, but Adams (2005) considered it a distinct species based on morphology and sequence analysis.

**Distribution:** Cosmopolitan.

**Substrate:** Bark of dead or dying twigs and branches.

**Disease Note:** Opportunistic pathogen, canker.

**Host:** Woody angiosperms from multiple plant families. Pathogen of apple trees.

### Supporting Literature:

Adams, G.C., Wingfield, M.J., Common, R., and Roux, J. 2005. Phylogenetic relationships and morphology of *Cytospora* species and related teleomorphs (Ascomycota, Diaporthales, Valsaceae) from *Eucalyptus*. *Stud. Mycol.* 52: 1-144.

Eriksson, O.E. 1992. The non-lichenized pyrenomycetes of Sweden. Btjtryck, Lund, Sweden, 208 pages.

Gaiova, V.P. 1985. [Systematic, morphologic and biology of the fungus genus *Valsa* Fr. s. l. and its anamorph genus *Cytospora* Ehr.: Fr. Ukrain's'k. Bot. Zhurn. 42: 86-94.

Grove, W.B. 1935. British Stem- and Leaf-Fungi (Coelomycetes) Vol. 1. Cambridge Univ. Press, Cambridge, 488 pages.

Hayova, V.P., and Minter, D.W. 1998. *Valsa ceratosperma*. I.M.I. Descr. Fungi Bact. 1366: 1-5.

Hubbes, M. 1960. Systematische und physiologische Untersuchungen an Valsaceen auf Weiden. *Phytopathol. Z.* 39: 65-93.

Kobayashi, T. 1970. Taxonomic studies of Japanese Diaporthaceae with special reference to their life-histories. *Bull. Gov. Forest Exp. Sta.* 226: 1-242.

Spielman, L.J. 1985. A monograph of *Valsa* on hardwoods in North America. *Canad. J. Bot.* 63: 1355-1378.

Urban, Z. 1958. Revise ceskoslovenských zástupců rodu *Valsa*, *Leucostoma*, a *Valsella*. *Rozpr. Českoslov. Akad. Ved.* 68: 1-101.

Winter, G. 1887. Die Pilze Deutschlands, Oesterreichs und der Schweiz. II. Abtheilung: Ascomyceten: Gymnoasceen und Pyrenomyceten. *Rabenh. Krypt.-Fl.*, ed. 2, 925 pages.

Verified By: Erica On Jan 05, 2006

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**Valsa ambiens subsp. ambiens (Pers. : Fr. ) Fr. 1849 (Ascomycetes, Diaporthales)**

≡ *Sphaeria ambiens* Pers. : Fr. 1801 Note: Sanctioned by Fries, Syst. Mycol. II:403, 1823.

≡ *Valsa ambiens* (Pers. : Fr.) Fr. 1849 Note: See type subspecies.

= *Valsa ambiens* f. *elaegni* Rehm 1918 Note: Erroneously cited by Spielman (1985) as *eleagni*.

= *Valsa ambiens* var. *shepherdiae* Sacc. 1917

= *Valsa amorphae* Ellis & Everh. 1897

[= *Valsa celtidis* Ellis & Everh. 1897 - illegitimate later homonym, not included in search] Note: Not *Valsa celtidis* Cooke 1876 = *Valsaria insitiva*.

= *Valsa clausa* Cooke & Ellis 1879

≡ *Engizostoma clausum* (Cooke & Ellis) Kuntze 1898

= *Valsa conscripta* Cooke & Ellis 1878

≡ *Engizostoma conscriptum* (Cooke & Ellis) Kuntze 1898

= *Sphaeria expers* Schwein. 1832

≡ *Valsa expers* (Schwein.) Cooke 1877

≡ *Calosphaeria expers* (Schwein.) Ellis & Everh. 1892

= *Valsa laurina* Cooke & Ellis 1878

≡ *Engizostoma laurinum* (Cooke & Ellis) Kuntze 1898

= *Valsa menispermi* Ellis & Holw. 1885

= *Valsa mesoleuca* Berk. & M.A. Curtis 1876

= *Valsa myinda* Cooke & Ellis 1878 Note: Emend. Reid & Cain 1962 (see Spielman 1985).

≡ *Diaporthe myinda* (Cooke & Ellis) Sacc. 1882

≡ *Cryptodiaporthe myinda* (Cooke & Ellis) Wehm. 1933

= *Valsa obtecta* Cooke & Ellis 1878

≡ *Engizostoma obtectum* (Cooke & Ellis) Kuntze 1898

= *Valsa pauperata* Cooke & Ellis 1881

≡ *Engizostoma pauperatum* (Cooke & Ellis) Kuntze 1898

= *Valsa ribicola* Ellis & Everh. 1894

≡ *Engizostoma ribicola* (Ellis & Everh.) Kuntze 1898

= *Valsa symphoricarpi* Rehm 1911

**Alternate State (Anamorph):** *Cytospora leucosperma* (Pers. : Fr.) Fr.

**Notes:** Collections from *Acer saccharum* and *Acer platanoides* are referred to *Valsa ambiens* subsp. *leucostomoides*. Spielman (1985) recognized the collections of Cooke & Ellis on *Acer rubrum* and



*Acer saccharinum* (under the name *Valsa pauperata*) as a morphologically distinct but geographically limited maple form within *Valsa ambiens* subsp. *ambiens*.

**Distribution:** Cosmopolitan (Spielman 1985).

**Substrate:** Wood, dying twigs.

**Disease Note:** Probably a weak parasite (Hayova 1998).

**Host:** Woody angiosperms from multiple plant families. Collections from *Acer saccharum* and *Acer platanoides* are referred to *Valsa ambiens* subsp. *leucostomoides*.

Verified By: Erica On Dec 21, 2005

**Cytospora leucosperma** (Pers. : Fr.) Fr. 1823

= *Naemaspora leucosperma* Pers. : Fr. 1796

= *Cytospora ambiens* Sacc. 1879 Note: Published as *Cytispora*.

= *Cytospora boreella* Earle 1901 Note: Author changed from Tracy & Earle, checked source.

= *Cytospora carphosperma* Fr. 1823 Note: Published as *Cytispora*.

= *Cytospora celastrina* Ellis & Barthol. 1896 Note: Published as *Cytispora*.

= *Cytospora celtidis* Ellis & Everh. 1894 Note: Published as *Cytispora*.

= *Cytospora exasperans* Ellis & Everh. 1894 Note: Published as *Cytispora*.

[= *Cytospora juglandicola* Ellis & Barthol. 1896 - illegitimate later homonym, not included in search] Note: Published as *Cytispora*. Not *Cytospora juglandicola* Sacc. 1881. Published as *Cytispora Cytispora*

= *Cytospora nyssae* Fairm. 1922

= *Cytospora phomopsis* Sacc. 1915

= *Cytospora sambucicola* Tehon & G.L. Stout 1929

= *Cytospora sambucina* Ellis & Barthol. 1897 Note: Published as *Cytispora*. Not *Cytospora sambucina* Tehon & E.Y. Daniels 1927.

[= *Cytospora sambucina* Tehon & E.Y. Daniels 1927 - illegitimate later homonym, not included in search] Note: Not *Cytospora sambucina* Ellis & Barthol. 1897.

= *Cytospora sassafras* Ellis & Everh. 1896 Note: Published as *Cytispora*.

= *Cytospora simplex* Höhn. 1927

**Alternate State (Teleomorph):** *Valsa ambiens* subsp. *ambiens* (Pers. : Fr. ) Fr.

**Notes:** This name was originally published as *Cytispora*. Fries sanctioned both *Cytospora leucosperma* and *Cytospora carphosperma*, but the epithet *leucosperma* has priority, dating from *Naemospora leucosperma* Pers. 1796. Spielman (1985) has designated a lectotype. Collections from *Acer saccharum* and *Acer platanoides* are referred to *Valsa ambiens* subsp. *leucostomoides*. Spielman (1985) recognized the collections of Cooke & Ellis on *Acer rubrum* and *Acer saccharinum* (under the name *Valsa pauperata*) as a morphologically distinct but geographically limited maple form within *Valsa ambiens* subsp. *ambiens*.

**Distribution:** Cosmopolitan (Spielman 1985).

**Substrate:** Wood, dying twigs.

**Disease Note:** Probably a weak parasite (Hayova 1998).

**Host:** Woody angiosperms from multiple plant families.

**Supporting Literature:**

Hayova, V.P., and Minter, D.W. 1998. *Valsa ambiens* subsp. *ambiens*. I.M.I. Descr. Fungi Bact. 1364: 1-4.

Spielman, L.J. 1985. A monograph of *Valsa* on hardwoods in North America. Canad. J. Bot. 63: 1355-1378.

Verified By: Erica On Dec 22, 2005

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**Valsa ambiens subsp. leucostomoides (Peck) Spielman 1985 (Ascomycetes, Diaporthales)**

≡ Valsa leucostomoides Peck 1885

= Valsa acericola G.H. Otth 1870

= Valsa grisea Peck 1884

= Valsa platanoidis G.H. Otth 1870 Note: Listed by Spielman (1985) as a possible synonym. Not (Pers.) Berk nor (Pers.) Cooke (publication year unknown).

= Sphaeria pseudoplatani Fr. 1823 Note: Listed by Spielman (1985) as a possible synonym.

≡ Valsa pseudoplatani (Fr.) Nitschke 1870

= Valsa rhodosporea Sacc. 1906

= Valsa saccharina Rehm 1912

**Alternate State (Anamorph):** Cytospora annulata Ellis & Everh.

**Notes:** *Valsa pseudoplatani* and *Valsa platanoidis* were listed by Spielman (1985) as possible taxonomic synonyms. No type or authentic material could be located to confirm the synonymy (Spielman 1985).

**Distribution:** Temperate North America; Europe.

**Substrate:** Bark of twigs and branches.

**Disease Note:** Probably a weak parasite (Hayova & Minter 1998).

**Host:** *Acer* spp. (Aceraceae), *Fraxinus* spp. (Oleaceae).

Verified By: Erica On Dec 22, 2005

**Cytospora annulata** Ellis & Everh. 1893

= Cytospora negundinis Ellis & Everh. 1894

**Alternate State (Teleomorph):** Valsa ambiens subsp. leucostomoides (Peck) Spielman

**Notes:** Published as Cytispora.

**Distribution:** Europe, North America (Canada, USA).

**Substrate:** Bark of twigs and branches.

**Disease Note:** Probably a weak parasite (Hayova & Minter 1998).

**Host:** *Acer* spp. (Aceraceae), *Fraxinus* spp. (Oleaceae).

**Supporting Literature:**

Hayova, V.P., and Minter, D.W. 1998. *Valsa ambiens* subsp. *leucostomoides*. I.M.I. Descr. Fungi Bact. 1365: 1-3.

Spielman, L.J. 1985. A monograph of *Valsa* on hardwoods in North America. Canad. J. Bot. 63: 1355-1378.

Verified By: Erica On Dec 22, 2005

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**Valsa coronata (Hoffm. : Fr.) Fr. 1849 (Ascomycetes, Diaporthales)**

≡ *Sphaeria coronata* Hoffm. : Fr. 1787

**Distribution:** North America (Canada, USA: OR, WV, GA), Europe, Asia (China). According to Farr et al. (1989) reports from North America are questionable.

**Substrate:** Twigs and dead limbs.

**Host:** Hardwood trees from multiple plant families.

**Internal Note:** *Valsa coronata* Sowerby is cited in IF but no record was found of this name in Sowerby's English Fungi (1797).

**Supporting Literature:**

Urban, Z. 1958. Revise ceskoslovenských zastupců rodu *Valsa*, *Leucostoma*, a *Valsella*. Rozpr. Českoslov. Akad. Ved. 68: 1-101.

Verified By: Erica On Jan 10, 2006

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**Valsa ceratosperma (Tode : Fr.) Maire 1937 (Ascomycetes, Diaporthales)**

≡ *Sphaeria ceratosperma* Tode : Fr. 1791 Note: Originally described on *Rosa* spp.; sanctioned by Fries (Syst. Mycol. II: 364, 1823), expanding the species concept to include the fungus on *Quercus*.

Variant spelling *Sphaeria ceratospermum* Tode : Fr.

≡ *Diatrype ceratosperma* (Tode : Fr.) Fr. 1849

= *Valsa agnostica* Cooke & Harkn. 1884

= *Valsa americana* Berk. & M.A. Curtis 1876 Note: Lectotype designated by Spielman 1985.

= *Valsa caryigena* Berk. & M.A. Curtis 1876 Note: Latin vs. Greek connector?

Variant spelling *Valsa caryogena* Berk. & M.A. Curtis 1876

= *Sphaeria ceanothi* Schwein. 1832 [1834] Note: Not *Sphaeria ceanothi* Cooke & Harkness 1884.

≡ *Valsa ceanothi* (Schwein.) Cooke 1877 Note: Not *Valsa ceanothi* Rehm 1911.

= *Valsa ceanothi* Rehm 1911 Note: Not *Valsa ceanothi* (Schwein.) Cooke 1877.

= *Valsa ceratophora* Tul. & C. Tul. 1863 Note: Described by Tulasne based on Mougeot's specimen

on *Quercus* (as *Valsa ceratosperma* Tode).

= *Valsa chlorodisca* Cooke & Ellis 1879

≡ *Engizostoma chlorodiscum* (Cooke & Ellis) Kuntze 1898

= *Valsa clavigera* Dearn. & Barthol. 1917

= *Sphaeria conspurcata* Schwein. 1832 [1834] Note: Not *Sphaeria conspurcata* Wallr. 1833 = *Massaria conspurcata* Sacc.

≡ *Valsa conspurcata* (Schwein.) Cooke 1877

= *Valsa decidua* Cooke & Ellis 1877

≡ *Engizostoma deciduum* (Cooke & Ellis) Kuntze 1898

= *Sphaeria decorticans* Fr. : Fr. 1817 Note: Not the illegitimate later homonym *Sphaeria decorticans* Lib. 1837 = *Diaporthe padi*. Synonymy based on Hayova (1998); see also Adams (2005).

≡ *Valsa decorticans* (Fr. : Fr.) Fr. 1849 Note: Synonymy based on Hayova (1998).

= *Valsa delicatula* Cooke & Ellis 1877

≡ *Engizostoma delicatulum* (Cooke & Ellis) Kuntze 1898

= *Valsa diospyri* Ellis & Everh. 1894

= *Valsa etherialis* Ellis & Everh. 1894

≡ *Engizostoma etheriale* (Ellis & Everh.) Kuntze 1898

= *Valsa excorians* Cooke & Ellis 1879

≡ *Engizostoma excorians* (Cooke & Ellis) Kuntze 1898

= *Valsa exigua* Nitschke 1870

= *Valsa floriformis* Ellis & Everh. 1891 [1890]

≡ *Engizostoma floriformis* (Ellis & Everh.) Kuntze 1898

= *Sphaeria frustum-coni* Schwein. 1832 [1834]

≡ *Valsa frustum-coni* (Schwein.) M.A. Curtis 1867

≡ *Cytospora frustum-coni* (Schwein.) Starbäck 1894 Note: Teleomorph in anamorph genus?

= *Valsa fuckelii* Nitschke 1870 Note: Synonymy based on Hayova (1998).

= *Valsa gossypina* Cooke 1878

= *Valsa hoffmannii* Nitschke 1870 Note: Synonymy based on Hayova (1998).

Variant spelling *Valsa hoffmanni* Nitschke 1870 Note: Original spelling.

= *Valsa horrida* Nitschke 1870 Note: Synonymy based on Hayova (1998).

= *Valsa leiphaemioides* Berk. & M.A. Curtis 1876 Note: In Spielman 1985 as *leiphaemoides*.

= *Valsa ligustrina* Cooke 1879

- = *Valsa lutescens* Ellis 1882
  - ≡ *Eutypella lutescens* (Ellis) Sacc. 1883
  - ≡ *Engizostoma lutescens* (Ellis) Kuntze 1898
- = *Diatrype macluriae* Ellis & Everh. 1892 Note: Erroneously cited by Spielman 1985 as a nomenclatural synonym of *Valsa macluriae* Cooke & Ellis 1879.
- = *Valsa macluriae* Cooke & Ellis 1879 Note: Published Sept. 1879 not *Valsa macluriae* Fabre Oct. 1879.
  - ≡ *Eutypella macluriae* (Cooke & Ellis) Ellis & Everh. 1892 Note: Author changed from ()Ellis; checked source.
  - ≡ *Engizostoma macluriae* (Cooke & Ellis) Kuntze 1898
- = *Valsa macrocarpa* Ellis & Everh. 1897
- = *Valsa minutella* Peck 1884
- = *Valsa morigena* Berk. & M.A. Curtis 1885
- = *Valsa multiplex* Cooke & Ellis 1879
- = *Valsa nyssae* Cooke 1878 Note: Erroneously cited as Cooke & Ellis; also in Fung. Amer. Exs. 200.
- = *Valsa praestans* Berk. & M.A. Curtis 1877 Note: As *proestans*, Cooke (1877) cites Berk. & M.A. Curtis in Curtis Cat. ? Source could not be located.
- = *Sphaeria radicum* Schwein. 1832
  - ≡ *Valsa radicum* (Schwein.) Cooke 1877
- = *Sphaeria rhizina* Schwein. 1832 [1834] Note: Spielman has *rhizinia*.
  - ≡ *Valsa rhizina* (Schwein.) Cooke 1877
- = *Valsa rhodophila* Berk. & Broome 1859 Note: See Winter 1887. Not the illegitimate later homonym *Valsa rhodophila* Nitschke 1870; Nitschke referred Berkeley & Broome's fungus to a rose form of *Valsa ceratophora*. Not treated by Spielman (1985).
- = *Valsa rhoiphila* Cooke & Ellis 1878 Note: Published as *Valsa rhuiphila*.
  - ≡ *Engizostoma rhoiphilum* (Cooke & Ellis) Kuntze 1898
- Variant spelling *Valsa rhoophila* Cooke & Ellis Note: Saccardo's Syll. fung. I: 127
- = *Sphaeria rimicola* Schwein. 1832 [1834]
  - ≡ *Valsa rimicola* (Schwein.) Cooke 1877
  - ≡ *Calosphaeria rimicola* (Schwein.) Ellis & Everh. 1892
- [= *Valsa rubi* Peck 1877 - illegitimate later homonym, not included in search] Note: Not *Valsa rubi* Fuckel 1870.
- = *Valsa rugiella* Cooke & Ellis 1877

≡ *Eutypella rugiella* (Cooke & Ellis) Sacc. 1882

≡ *Engizostoma rugillum* (Cooke & Ellis) Kuntze 1898

= *Valsa schweinitzii* Nitschke 1870 Note: Synonymy based on Hayova (1998).

**Alternate State (Anamorph):** *Cytospora sacculus* (Schwein. : Fr.) Gvrit.

**Notes:** Tode (1790) described *Sphaeria ceratosperma* based on a specimen from *Rosa canina* (as *Sphaeria ceratospermum alpha strigosa*), referencing the pre-Linnaean name *Ceratospermum nigrum minimum discoides* Micheli. Fries sanctioned the name *Sphaeria ceratosperma* (Syst. Mycol. II: 364, 1823), referencing Tode but based on examination of Mougeot's 1818 exsiccated specimen on *Quercus*. Tulasne (1863) referred Mougeot's specimen to the new species *Valsa ceratophora* Tul. & C. Tul. 1863, citing *Sphaeria ceratosperma* sensu Fries as a synonym pro parte (partial synonym), but explicitly excluding the type of *Sphaeria ceratosperma* Tode by stating: Here we are citing particularly those synonyms which refer to the fungus growing on Oak...*Sphaeria ceratospermum* Tode, although it is not much different, is said to live on the bark of *Rosa canina* L. Hubbes (1960) listed Mougeot's specimen as the type of *Valsa ceratosperma* (Tode:Fr.) Maire, even though it was on *Quercus* and not *Rosa*, the host of the fungus originally described by Tode in 1790. As a result, *Val. Valsa ceratophora* Tul. & C. Tul. (described on *Quercus*) has been listed variously as a taxonomic synonym (Hubbes 1960) or nomenclatural synonym (Adams et al. 2005) of *Valsa ceratosperma* (Tode:Fr.) Maire (neotypified on *Quercus*). Spielman (1985) accepted Mougeot's specimen as the neotype of *Valsa ceratosperma* but did not list *Valsa ceratophora* as a synonym. Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, while Kobayashi listed *Cytospora rosarum* as the accepted name of the anamorph, with *Torsellia dolosa* as a synonym. Gvritishvili (1982) disagreed, listing *Cytospora sacculus* as the anamorph of *Valsa ceratosperma*, followed by Spielman (1985).

**Distribution:** Cosmopolitan.

**Substrate:** Bark of dead or dying twigs and branches.

**Disease Note:** Opportunistic pathogen, canker.

**Host:** Woody angiosperms from multiple plant families. Pathogen of apple trees.

Verified By: Erica On Dec 22, 2005

**Cytospora sacculus** (Schwein. : Fr.) Gvrit. 1969

≡ *Sphaeria sacculus* Schwein. : Fr. 1822 Note: Sanctioned by Fries, Syst. Mycol. II p. 378, 1823.

≡ *Rabenhorstia sacculus* (Schwein. : Fr.) Starbäck 1893

≡ *Torsellia sacculus* (Schwein. : Fr.) Starbäck 1894 Note: *Sphaeria sacculus* was listed by Fries in Summa Veg. Scand. 1849 p. 413 as the type of *Torsellia*, but he did not explicitly make the combination (Art. 33.1).

= *Cytospora ailanthi* Berk. & M.A. Curtis ex Grove 1923 Note: Berkeley & Curtis did not provide a description (nom. nud.) in 1874. Saccardo listed this name under the heading Species Imperfecte Descriptae without supplemental description. Grove was the first to validly publish a description (Spielman 1985).

= *Cytospora amorphae* Ellis & Barthol. 1897 Note: Published as *Cytispora*.

= *Cytospora caryogena* Ellis & Everh. 1894 Note: Published as *Cytispora caryigena*.

= *Cytospora ceratophora* Sacc. 1879 Note: Published as *Cytispora*.

Variant spelling *Cytospora ceratophoma* Sacc. Note: Kobayashi (1970) probably intended to cite *C. ceratophora* Sacc. There is no record of this name in Index Fungorum.

= *Cytospora chloroglaea* Berk. & M.A. Curtis 1874 Note: Published as *Cytispora*.

= *Cytospora decorticans* Sacc. 1884

= *Cytospora difformis* Schwein. 1832 Note: Published as *Cytispora*.

= *Cytospora gleditschiae* Ellis & Barthol. 1897 Note: Published as *Cytispora gleditsiae*.

= *Cytospora grandis* Peck 1887

= *Cytospora maclurae* Ellis & Barthol. 1897 Note: Published as *Cytispora*.

= *Cytospora smilacis* Cooke 1878

= *Sphaeria sphaerocephala* Schwein. : Fr. 1822 Note: This epithet has equal priority with *Cytospora sacculus*, but Spielman established priority by selecting *sacculus* as the accepted name.

≡ *Cytospora sphaerocephala* (Schwein. : Fr.) Sacc. 1884

≡ *Lamyella sphaerocephala* (Schwein. : Fr.) Starbäck 1894 Note: *Sphaeria sphaerocephala* was listed by Fries in Summa Veg. Scand. 1849 p. 413 as the type of *Lamyella*, but he did not explicitly make the combination (Art. 33.1).

= *Cytospora tumida* Lib. 1832 Note: Synonymy based on Hayova 1998.

= *Cytospora tumulosa* Ellis & Everh. 1897

**Alternate State (Teleomorph):** *Valsa ceratosperma* (Tode : Fr.) Maire

**Notes:** Urban (1958) listed *Torsellia dolosa* as the anamorph of *Valsa ceratosperma*, with *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* as synonyms. Gvritishvili (1982) listed *Cytospora sacculus* as the anamorph and excluded *Torsellia dolosa*, *Cytospora rosarum*, *C. capreae*, *C. fuckelii* and *C. schweinitzii* from the synonymy. Hayova (1998) listed *Cytospora eucalyptina* Speg. 1917 as a taxonomic synonym, but Adams (2005) considered it a distinct species based on morphology and sequence analysis.

**Distribution:** Cosmopolitan.

**Substrate:** Bark of dead or dying twigs and branches.

**Disease Note:** Opportunistic pathogen, canker.

**Host:** Woody angiosperms from multiple plant families. Pathogen of apple trees.

### Supporting Literature:

Adams, G.C., Wingfield, M.J., Common, R., and Roux, J. 2005. Phylogenetic relationships and morphology of *Cytospora* species and related teleomorphs (Ascomycota, Diaporthales, Valsaceae) from *Eucalyptus*. Stud. Mycol. 52: 1-144.

Eriksson, O.E. 1992. The non-lichenized pyrenomyces of Sweden. Btjtryck, Lund, Sweden, 208 pages.

Gaiova, V.P. 1985. [Systematic, morphologic and biology of the fungus genus *Valsa* Fr. s. l. and its anamorph genus *Cytospora* Ehr.: Fr. Ukrayins'k. Bot. Zhurn. 42: 86-94.

Grove, W.B. 1935. British Stem- and Leaf-Fungi (Coelomycetes) Vol. 1. Cambridge Univ. Press, Cambridge, 488 pages.

Hayova, V.P., and Minter, D.W. 1998. *Valsa ceratosperma*. I.M.I. Descr. Fungi Bact. 1366: 1-5.

Hubbes, M. 1960. Systematische und physiologische Untersuchungen an Valsaceen auf Weiden. Phytopathol. Z. 39: 65-93.

**Kobayashi, T.** 1970. Taxonomic studies of Japanese Diaporthaceae with special reference to their life-histories. Bull. Gov. Forest Exp. Sta. 226: 1-242.

**Spielman, L.J.** 1985. A monograph of *Valsa* on hardwoods in North America. Canad. J. Bot. 63: 1355-1378.

**Urban, Z.** 1958. Revize ceskoslovenských zástupců rodu *Valsa*, *Leucostoma*, a *Valsella*. Rozpr. Českoslov. Akad. Ved. 68: 1-101.

**Winter, G.** 1887. Die Pilze Deutschlands, Oesterreichs und der Schweiz. II. Abtheilung: Ascomyceten: Gymnoasceen und Pyrenomyceten. Rabenh. Krypt.-Fl., ed. 2, 925 pages.

Verified By: Erica On Jan 05, 2006

## ***Valsa rhodophila* Nitschke 1870 (Ascomycetes, Diaporthales)**

**Alternate State (Anamorph):** *Cytospora rhodophila* Sacc.

**Notes:** *Valsa rhodophila* Nitschke is an illegitimate later homonym of *Valsa rhodophila* Berk. & Broome 1859 = *Valsa ceratosperma*. Nitschke described this fungus under the name *Valsa rhodophila* Berk. & Broome, but excluded the type by assigning Berkeley & Broome's type specimen to *Valsa ceratophora* (= *Valsa ceratosperma*). He thereby created an illegitimate later homonym (Art. 48.1). The name is also sometimes erroneously cited as *Valsa rhodophila* Berk. & Broome sensu Nitschke. The taxonomic status of this species should be evaluated. If it is confirmed that *Valsa rhodophila* Nitschke is a distinct species and not a synonym of *Valsa ceratosperma*, a replacement name will be needed for *Valsa rhodophila* Nitschke; no legitimate name has been published for the teleomorph of *Cytospora rhodophila* Sacc.

**Distribution:** Europe.

**Substrate:** Dead twigs.

**Disease Note:** Made cultivation of certain roses exceedingly difficult (reported as *Valsa rhodophila* Berk. & Broome).

**Host:** *Rosa* spp. (Rosaceae).

Verified By: Erica On Dec 22, 2005

## ***Cytospora rhodophila* Sacc. 1884**

**Alternate State (Teleomorph):** *Valsa rhodophila* Nitschke

**Notes:** Saccardo described *Cytospora rhodophila* as the anamorph of *Valsa rhodophila* Nitschke, apparently intentionally not citing Berk. & Broome 1859.

**Distribution:** Europe.

**Substrate:** Dead twigs.

**Disease Note:** Made cultivation of certain roses difficult (Grove 1935).

**Host:** *Rosa* spp. (Rosaceae).

## **Supporting Literature:**

**Eriksson, O.E.** 1992. The non-lichenized pyrenomycetes of Sweden. Btjtryck, Lund, Sweden, 208 pages.

**Gaiova, V.P.** 1985. [Systematic, morphologic and biology of the fungus genus *Valsa* Fr. s. l. and its anamorph genus *Cytospora* Ehr.: Fr. Ukrayins'k. Bot. Zhurn. 42: 86-94.

**Grove, W.B.** 1935. British Stem- and Leaf-Fungi (Coelomycetes) Vol. 1. Cambridge Univ. Press, Cambridge, 488 pages.

**Winter, G.** 1887. Die Pilze Deutschlands, Oesterreichs und der Schweiz. II. Abtheilung: Ascomyceten: Gymnoasceen und Pyrenomyceten. Rabenh. Krypt.-Fl., ed. 2, 925 pages.

Verified By: Erica On Dec 21, 2005

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**Valsa rosarum De Not. 1863 (Ascomycetes, Diaporthales)**

≡Valsa ceratophora f. rosarum (De Not.) Fuckel 1870 [1869]

≡Valsa ceratophora var. rosarum (De Not.) Sacc. 1882

**Alternate State (Anamorph):** Cytospora rosarum Grev.

**Notes:** This species was assigned by Saccardo as a variety of *Valsa ceratophora* = *Valsa ceratosperma*. Urban (1958) considered *Valsa rosarum* to be a synonym of *Valsa ceratosperma*, listing *Cytospora rosarum* as a synonym of *Torsellia dolosa*, which he considered to be the anamorph of *Valsa ceratosperma*. He failed to recognize that *rosarum* was the older epithet. Kobayashi (1970) corrected this by listing *Cytospora rosarum* as the anamorph of *Valsa ceratosperma*. Gvritishvili (1982) rejected the anamorphic connection of *Cytospora rosarum* to *Valsa ceratosperma*, instead listing *Cytospora sacculus* as the anamorph of *Valsa ceratosperma*. Recent authors have accepted Gvritishvili's interpretation (Spielman 1985, Hayova & Minter 1998).

**Distribution:** Europe, Asia (India).

**Host:** *Rosa* spp. (Rosaceae).

Verified By: Erica On Jan 09, 2006

**Cytospora rosarum Grev. 1858**

**Alternate State (Teleomorph):** Valsa rosarum De Not.

**Notes:** Urban (1958) considered *Valsa rosarum* to be a synonym of *Valsa ceratosperma*, listing *Cytospora rosarum* as a synonym of *Torsellia dolosa*, which he considered to be the anamorph of *Valsa ceratosperma*. He failed to recognize that *rosarum* was the older epithet. Kobayashi (1970) corrected this by listing *Cytospora rosarum* as the anamorph of *Valsa ceratosperma*. Gvritishvili (1982) rejected the anamorphic connection of *Cytospora rosarum* to *Valsa ceratosperma*, instead listing *Cytospora sacculus* as the anamorph of *Valsa ceratosperma*. Recent authors have accepted Gvritishvili's interpretation (Spielman 1985, Hayova & Minter 1998).

**Distribution:** Europe, Asia (India, Pakistan).

**Host:** *Rosa* spp. (Rosaceae).

**Supporting Literature:**

Gvritishvili, M.N. 1982. Fungi of the genus *Cytospora* in the USSR. Izdatelstve Sabchota Sakarstvelo, Tbilici, 214 pages.

Hayova, V.P., and Minter, D.W. 1998. *Valsa ceratosperma*. I.M.I. Descr. Fungi Bact. 1366: 1-5.

Kobayashi, T. 1970. Taxonomic studies of Japanese Diaporthaceae with special reference to their life-histories. Bull. Gov. Forest Exp. Sta. 226: 1-242.

Spielman, L.J. 1985. A monograph of *Valsa* on hardwoods in North America. Canad. J. Bot. 63: 1355-1378.

Urban, Z. 1958. Revise ceskoslovenských zastpcu rodu *Valsa*, *Leucostoma*, a *Valsella*. Rozpr. Ceskoslov. Akad. Ved. 68: 1-101.

Verified By: Erica On Jan 09, 2006

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**Valsa leucostoma var. rosarum Sacc. 1913 (Ascomycetes, Diaporthales)**

[*Valsa leucostoma* f. *rosarum* in herb.? ] Note: No record of publication of this name could be located.

**Notes:** *Valsa leucostoma* was considered to be a synonym of *Leucostoma persoonii* (Nitschke)

Höhn. by Hayova & Minter (1998), but they did not include *Valsa leucostoma* var. *rosarum* Sacc. in the synonymy.

**Distribution:** Europe.

**Substrate:** Bark of dead twigs.

**Host:** *Rosa canina* (Rosaceae, type).

**Supporting Literature:**

Hayova, V.P., and Minter, D.W. 1998. *Leucostoma persoonii*. I.M.I. Descr. Fungi Bact. 1363: 1-3.

Verified By: Erica On Jan 11, 2006

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**Leucostoma persoonii (Nitschke) Höhn. 1928 (Ascomycetes, Diaporthales)**

≡ *Valsa persoonii* Nitschke 1870

= *Sphaeria leucostoma* Pers. : Fr. 1794 Note: Bot. Annales 11, p. 23. Sanctioned by Fries, Syst. Mycol. II: 387, 1821.

≡ *Valsa leucostoma* (Pers. : Fr.) Fr. 1849

**Alternate State (Anamorph):** *Cytospora leucostoma* Sacc.

**Notes:** The epithet *leucostoma* was sanctioned by Fries and would have priority over *persoonii*, but the tautonym *Leucostoma leucostoma* is prohibited by the Code (Art. 23.4)

**Distribution:** Africa, Asia, Europe, North America, South America (Brazil), Australia, New Zealand.

**Substrate:** Dead or dying, attached or fallen twigs.

**Disease Note:** Wound pathogen, causing mass wilting of branches and dieback of young trees, canker.

**Host:** Principal hosts: Rosaceae; also *Alnus* (Betulaceae).

Verified By: Erica On Jan 11, 2006

**Cytospora leucostoma** Sacc. 1881

**Alternate State (Teleomorph):** *Leucostoma persoonii* (Nitschke) Höhn.

**Distribution:** Africa, Asia, Europe, North America, South America (Brazil), Australia, New Zealand.

**Substrate:** Dead or dying, attached or fallen twigs.

**Disease Note:** Wound pathogen, causing mass wilting of branches and dieback of young trees, canker.

**Host:** Principal hosts: Rosaceae; also *Alnus* (Betulaceae).

**Supporting Literature:**

Hayova, V.P., and Minter, D.W. 1998. *Leucostoma persoonii*. I.M.I. Descr. Fungi Bact. 1363: 1-3.

Surve-Iyer, R.S., Adams, G.C., Iezzoni, A.F., and Jones, A.L. 1995. Isozyme detection and variation in *Leucostoma* species from *Prunus* and *Malus*. Mycologia 87: 471-482.

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### **Valsa sepincola f. rosaecola Fuckel 1871 (Ascomycetes, Diaporthales)**

**Notes:** This name was published as *Valsa sepincola* a. *Rosaecola*. It is listed here as a form, but could also be considered a variety. Saccardo (Syll. Fung. I:134, 1882) included both the *Rosa* form and the *Rubus* form in his description under *Valsa sepincola*. Urban (1958) listed *Valsa sepincola* as an accepted species, but included only the type specimen of the *Rubus* form described by Fuckel, *Valsa sepincola* b. *rubicola*. (F. rh. ed. I, 2457).

**Distribution:** Europe.

**Substrate:** Bark of attached dead branches.

**Host:** *Rosa rubiginosa* (Rosaceae).

**Internal Note:** Should be spelled rosicola?

#### **Supporting Literature:**

Urban, Z. 1958. Revise ceskoslovenských zastupců rodu *Valsa*, *Leucostoma*, a *Valsella*. Rozpr. Českoslov. Akad. Ved. 68: 1-101.

Verified By: Erica On Jan 11, 2006

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### **Eutypa lata var. lata (Pers. : Fr.) Tul. & C. Tul. 1863 (Ascomycetes, Xylariales)**

≡ *Sphaeria lata* Pers. : Fr. 1796 Note: Sanctioned by Fries, Syst. Mycol. II:369, 1823.

≡ *Diatrype lata* (Pers. : Fr.) Fr. 1849

≡ *Eutypa lata* (Pers. : Fr.) Tul. & C. Tul. 1863 Note: See type variety.

≡ *Stromatosphaeria lata* (Pers. : Fr.) Grev. 1824

≡ *Valsa lata* (Pers. : Fr.) Nitschke 1867

= *Eutypa ambigua* J. Kunze ex Sacc. 1882

= *Eutypa armeniacae* Hansf. & M.V. Carter 1957 Note: Determinations of this fungus as a pathogen of grapes in the Pacific Northwest have often been based on isolations of the anamorph state. Rappaz (Mycol. Helv. 2:356. 1987) considered this species to be conspecific with *E. lata* (Pers.:Fr.) Tul. & C. Tul. Talbot (C.M.I. Descr. 436. 1974). *Libertella* anamorph.

[= *Sphaeria capitata* Pers. 1801 - illegitimate later homonym, not included in search] Note: Not *Sphaeria capitata* Holmsk. 1790 = *Cordyceps capitata*.

= *Cryptosphaeria crepiniana* Sacc. & Roum. 1883

= *Valsa fraxini* Nitschke 1867

≡ *Eutypa fraxini* (Nitschke) Sacc. 1882

[= *Sphaeria fuliginosa* Sowerby 1803 - illegitimate later homonym, not included in search] Note: Not *Sphaeria fuliginosa* Pers.:Fr. 1800 = *Godronia fuliginosa*.

- = *Eutypa lata* var. *ribis* Barthelet 1938
- = *Eutypa lata* var. *rimulosa* Sacc. 1914
- = *Diatrype macrothecia* Speg. 1880
- = *Valsa mauroides* Nitschke 1867
  - ≡ *Eutypa mauroides* (Nitschke) Sacc. 1882
- = *Sphaeria milliaria* Fr. : Fr. 1817 Note: Sanctioned by Fries, Syst. Mycol. II:370, 1823.
  - ≡ *Eutypa milliaria* (Fr. : Fr.) Sacc. 1875
  - ≡ *Valsa milliaria* (Fr. : Fr.) Nitschke 1867
  - ≡ *Diatrype milliaria* (Fr. : Fr.) Fr. 1849
- = *Valsa myriocarpa* Nitschke 1867
  - ≡ *Cryptosphaeria myriocarpa* (Nitschke) Sacc. 1882
- = *Sphaeria papillata* Hoffm. 1787 Note: This name appears in Fr. Syst. Mycol. II:461 but is listed as a synonym of *Sphaeria lata* by Fries on p. 369. Otherwise, the epithet would have priority.
- = *Valsa rhodi* Nitschke 1867
  - ≡ *Eutypa rhodi* (Nitschke) Fuckel 1870

**Distribution:** Cosmopolitan.

**Disease Note:** Canker.

**Host:** Multiple plant families.

### Supporting Literature:

Carter, M.V. 1991. The status of *Eutypa lata* as a pathogen. Phytopathol. Pap. 32: 1-59.

Rappaz, F. 1987. [Taxonomy and nomenclature of the octosporous Diatrypaceae]. Mycol. Helv. 2: 285-648.

Verified By: Erica On Jan 12, 2006

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### ***Diatrype flavovirens* (Pers. : Fr.) Fr. 1849 (Ascomycetes, Xylariales)**

≡ *Eutypa flavovirens* (Pers. : Fr.) Tul. & C. Tul. 1867

Variant spelling *Eutypa flavo-virens* (Pers. : Fr.) Tul. & C. Tul. 1867

≡ *Valsa flavovirens* (Pers. : Fr.) Nitschke

**Alternate State (Anamorph):** *Cytosporina flavovirens* (Sacc.) Grove

**Distribution:** Cosmopolitan.

**Host:** Hardwoods from multiple families.

Verified By: Erica On Jan 11, 2006

***Cytosporina flavovirens* (Sacc.) Grove 1923**

≡ *Cytospora flavovirens* Sacc. 1884

Variant spelling *Cytospora flavo-virens* Sacc. 1884 Note: Original spelling.

**Alternate State (Teleomorph):** *Diatrype flavovirens* (Pers. : Fr.) Fr.

**Distribution:** Cosmopolitan.

**Substrate:** Bark and wood.

**Host:** Hardwoods from multiple families.

### **Supporting Literature:**

**Glawe, D.A., and Rogers, J.D.** 1984. Diatrypaceae in the Pacific Northwest. *Mycotaxon* 20: 401-460.

Verified By: Erica On Jan 11, 2006

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### **Additional Literature**

Alfieri Jr., S.A., Langdon, K.R., Wehlburg, C., and Kimbrough, J.W. 1984. Index of Plant Diseases in Florida (Revised). Florida Dept. Agric. and Consumer Serv., Div. Plant Ind. Bull. 11 : 1-389.

Brenckle, J.F. 1917. North Dakota fungi - I. *Mycologia* 9 : 275-293.

Chen, M.-M. 2002. Forest fungi phytogeography: Forest fungi phytogeography of China, North America, and Siberia and international quarantine of tree pathogens. Pacific Mushroom Research and Education Center, Sacramento, California, 469 pages.

Farr, D.F., Bills, G.F., Chamuris, G.P., and Rossman, A.Y. 1989. Fungi on Plants and Plant Products in the United States. American Phytopathological Society, St. Paul, Minnesota, 1252 pages.

Gilman, J.C., Tiffany, L.H., and Lewis, R.M. 1957. Iowa Ascomycetes II. Diaporthaceae: Valseae. Iowa State Coll. J. Sci. 31: 623-647.

Pantidou, M.E. 1973. Fungus-host index for Greece. Benaki Phytopathol. Inst., Kiphissia, Athens., 382 pages.

Tai, F.L. 1979. Sylloge Fungorum Sinicorum. Sci. Press, Acad. Sin., Peking, 1527 pages.

Teng, S.C. 1996. Fungi of China. Mycotaxon, Ltd., Ithaca, NY, 586 pages.

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Written by Erica Cline, January 2006